Amendments to the Claims

This listing of claims will replace all prior versions, or listings, or claims in the application.

Listing of Claims:

1. (currently amended) A simplified, weak GPS C/A code coherent acquisition method comprising the steps of:

receiving a weak global positioning system C/A code digitized data signal of a length of N ms;

generating a complex radio frequency digitized signal with a length of N ms as a local reference signal;

first multiplying said digitized data signal from said receiving step with said digitized complex radio frequency signal;

dividing ~~an output~~ a product from said multiplying ~~step~~ of digitized data signal with digitized complex radio frequency signal into N equal sections;

adding data signals in N equal sections together from said dividing step;

first applying a fast Fourier transform to a sum of data signals from ~~an output of said adding step;~~

~~considering~~ acquiring 1ms of digitized C/A code of a preselected GPS satellite;

second applying a fast Fourier transform [~~on the output~~] to said 1 ms of digitized C/A code of a preselected GPS satellite from of said ~~considering~~ acquiring step;

taking a complex conjugate ~~of an output~~ of said fast Fourier transformation from said second applying step;

second multiplying said complex conjugate from ~~an output of~~ said taking step with said fast Fourier transformation from ~~output of~~ said first applying step; and

taking an inverse fast Fourier transform of a product from ~~the output~~ said second multiplying step~~s~~, an index of the maximum of said inverse fast Fourier transform being ~~the~~ an initial phase of the C/A code.

2. (currently amended) The simplified, weak GPS C/A code coherent acquisition method of claim 1 wherein said dividing step further includes the step of dividing an output of said first multiplying step into 10 equal sections.

3. (currently amended) The simplified, weak GPS C/A code coherent acquisition method of claim 2 wherein said dividing step further includes the step of dividing an output of said first multiplying step into 10 equal sections each containing 5000 data points.

4. (original) The simplified, weak GPS C/A code coherent acquisition method of claim 1 wherein said receiving step further includes the step of receiving a weak global positioning system C/A code digitized data signal of a 10 ms length.

5. (original) The simplified, weak GPS C/A code coherent acquisition method of claim 1 wherein said generating step further includes the step of generating a complex radio frequency digitized signal 10 ms long with a frequency of 100 Hz.

6. (currently amended) The simplified, weak GPS C/A code coherent acquisition method of claim 1 wherein said second applying step further comprises the step of second applying a 5,000 point fast Fourier transform ~~on the output of said considering step~~ to said 1ms of digitized C/A code of a preselected GPS satellite from said acquiring step.

7. (currently amended) The simplified, weak GPS C/A code coherent acquisition method of claim 1 wherein said taking step further comprises the step of taking a 5,000 point inverse fast Fourier transform of a product ~~the output~~ of said second multiplying step ~~steps~~.